


BROADBAND EXPANSION GRANT APPLICATION

For Fiscal Year 2022

Public Service Commission of Wisconsin
RECEIVED: 03/17/2022 2:23:19 PM

Primary Applicant (Name and Address): Baldwin Telecom, Inc. dba Baldwin LightStream 930 Maple Street Baldwin, WI 54002	Applications MUST be UPLOADED to ERF via the Commission's website, http://psc.wi.gov/apps35/ERF_upload/content/mymenu.aspx . Refer to section 2.3 for detailed instructions. Applications are due and MUST be uploaded to ERF no later than: March 17, 2022 at 4:00pm (16:00) Central Time. Late applications will not be accepted.	
	Contact for further information: PSCStatebroadbandoffice@wisconsin.gov	
	Date: March 17, 2022	
The Public Service Commission of Wisconsin is seeking applications for Broadband Expansion Grants. The Commission may award one or more grants during Fiscal Year 2021 to public and private entities that meet the eligibility requirements set forth in Wis. Stat. § 196.504. Successful applicants will demonstrate a clear and achievable plan to improve broadband communications services in one or more underserved areas in the state.		
Applicant Certification: In signing this application, the undersigned verifies under penalty of perjury that the Applicant and its employees and agents have not, either directly or indirectly, entered into any agreement or participated in any collusion or otherwise taken any action in restraint of free competition with respect to this application; that no attempt has been made to induce any other person or firm to submit or not to submit an application; that this application has been independently arrived at without collusion with any other proposer, competitor or potential competitor; that this application has not been knowingly disclosed prior to the opening of applications to any other applicant or competitor; that all of the responses and representations of Applicant in this application are true and correct to the best of the undersigned's knowledge, information, and belief; and that Applicant agrees to, accepts, and will comply with all of the terms and conditions respecting this application and any award of a broadband expansion grant as may be established in a grant award Agreement.		
Name of Authorized Representative (Type or Print) Matt Sparks	Title General Manager	Phone (715) 684-3346
Signature of Authorized Representative 	Date March 15, 2022	

SUMMARY OF GRANT APPLICATION

Primary Applicant Name Baldwin Telecom, Inc. dba Baldwin LightStream	Amount of Broadband Grant Request (round to nearest dollar) \$2,005,702
Federal Employer Identification No. 39-0146640	Amount of Matching Funds Pledged (round to nearest dollar) \$2,172,844
Contact Name and Title Matt Sparks, General Manager	Total Cost of Proposed Project (round to nearest dollar) \$4,178,546
Telephone Number 715-684-3346	Project Name Town of Warren, St. Croix County
E-mail Address msparks@lswi.net	Type of Proposed Broadband Service (FTTH, Cable, DSL, etc.) Fiber-to-the Home (FTTH)
Grant Manager, if different than Primary Applicant	Grant Manager Federal Employer Identification No.
Grant Manager Contact Name	Grant Manager Email Address and Telephone Number
If the application proposes a public-private partnership, list the names, addresses, and FEINs of the partner companies or organizations The Town of Warren, 720 112th St, Roberts, WI 54023 FEIN 39-1727104	
Brief Project Description Broadband grant application will connect all eligible locations in the Town of Warren in St. Croix County to FTTH facilities and provide high-speed broadband to small businesses, residential and agricultural residents.	
Proposed Maximum Download Transmission Speed 1 Gig and faster	Proposed Maximum Upload Transmission Speed 1 Gig and faster
Proposed Minimum Download Transmission Speed 200Mbps	Proposed Minimum Upload Transmission Speed Subscriber will be able to choose from 200Mbps
County or Counties served by this project St. Croix County	Community or Communities served by this project Town of Warren, St. Croix County
List of the broadband service providers, if any, currently serving the area the applicant proposes to serve There are no known 25/3 Mbps broadband service providers in the proposed eligible grant area of Town of Warren, St. Croix County. For the residents that are able to subscribe to AT&T's DSL service, they report it being slow and unreliable.	

<p>Does proposed project serve an <u>unserved</u> area of the State, as defined in <u>Section 1.4</u> of the application instruction? (yes/no) Yes</p>	<p>Is the Applicant certified as a Broadband Forward! Community or Telecommuter Forward! Community, or does the grant project propose to serve a Broadband Forward! Community or Telecommuter Forward! Community? (yes/no) Yes, Town of Warren is certified as a Broadband Forward! Community</p>
<p>For last mile projects or component the expected number of Business Locations that will have access to the improved broadband service (i.e., total business locations passed or with new service access). 142 unserved and underserved non-agricultural small business/work from home locations and 48 agricultural/farm locations will have access to high-speed broadband service</p>	<p>For last mile projects or components the expected number of Residential Locations that will have access to the improved broadband service (i.e., total residential locations passed or with new service access). 316 unserved and underserved residential locations will have access to high-speed broadband service</p>
<p>Of the improved business locations, how many locations are unserved? 2</p>	<p>Of the improved residential locations, how many are unserved? 6</p>
<p>For providers that are eligible telecommunications carriers will the proposed broadband service be available to Lifeline customers? (yes/no) Yes, based on an expansion of its RDOF ETC designation</p>	<p>Are there any programs available for low-income households to access low-cost service or discounts? (yes/no) Yes</p>
<p>Is the internet service provider currently participating in the Emergency Broadband Benefit Program? (yes/no) Yes, BTI was an Emergency Broadband Benefit Program and now under the Affordable Connectivity Program</p>	<p>Is the internet service provider currently participating in the Department of Public Instruction and CESA purchasing's Digital Learning Bridge? (yes/no) Yes</p>
<p>Did the internet service provider participate in the Public Service Commission's voluntary Broadband Coverage Data Collection in 2012? (yes/no) Yes</p>	

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Summary of Project Budget and Funding Statement – Cost Categories and Funding

FY22 Broadband Expansion Grant Application

Budget & Income Summary



Please complete this form using Microsoft Excel. A PDF copy must be attached to your application as page four. In addition, this form must also be uploaded to ERF in Excel format.

Grant Summary

Grant Applicant:	Project:
Baldwin Lightstream	Town of Warren

Budget

Line:	Description / Category:	Grant Funds:	Match:	Total:
1	Contractual, Consultant Fees	\$ 1,868,235.00	\$ 2,023,922.00	\$ 3,892,157.00
2	Equipment (Calix ONT's, Routers)	\$ 137,467.00	\$ 148,922.00	\$ 286,389.00
3	Supplies			\$ -
4	Labor (Salary, Fringe)			\$ -
5	Permitting, Licensing Fees			\$ -
6	Travel			\$ -
7	Other			\$ -
Total:		\$ 2,005,702.00	\$ 2,172,844.00	\$ 4,178,546.00
		52.0% match requested		

Pledged Contributions

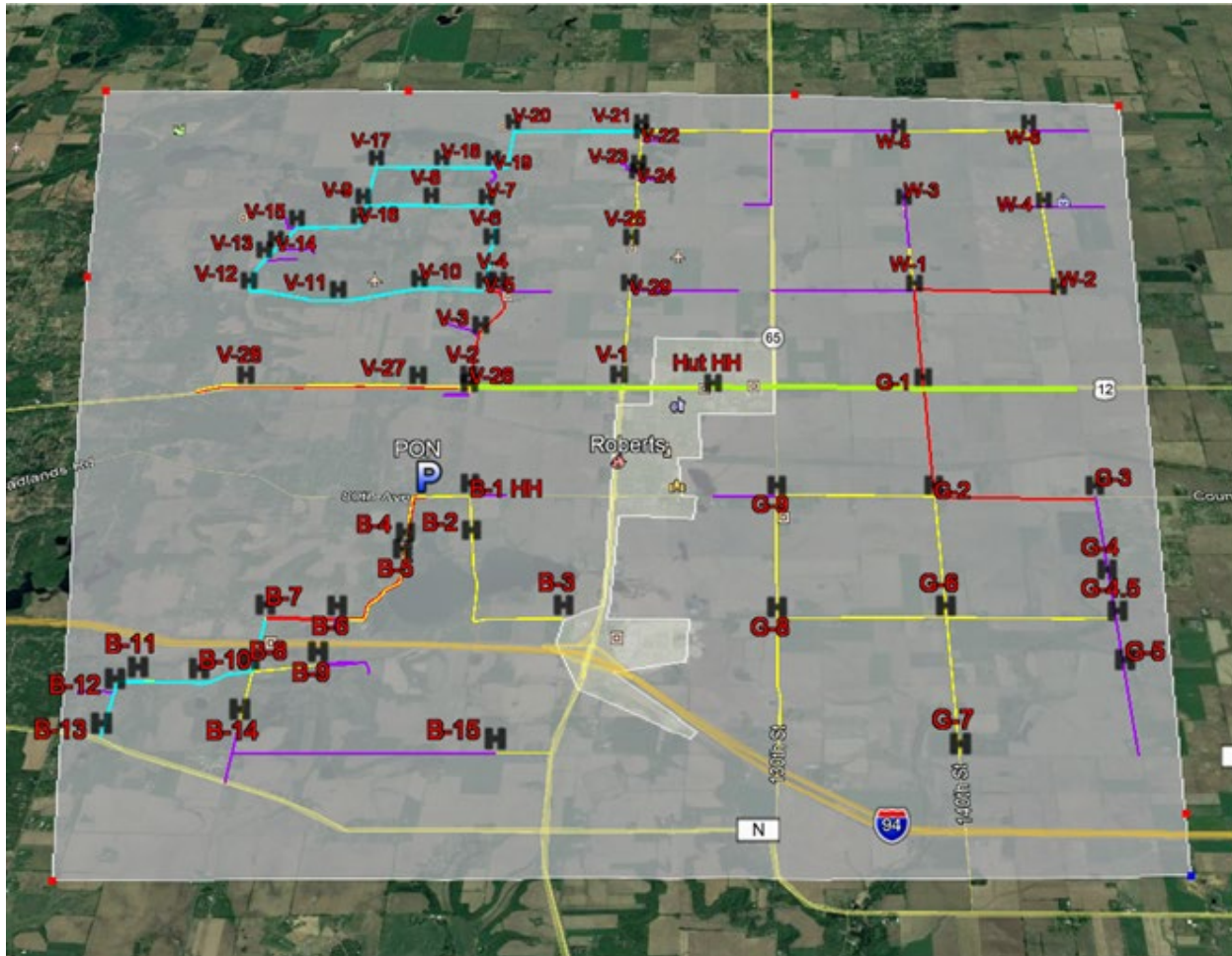
#:	Entity:	Entity Type:	Pledge Type:	Pledge:
1	Town of Warren	Partner	Cash	\$ 184,007.00
2	Baldwin Lightstream	Applicant	Cash	\$ 1,988,837.00
3				
4				
5				
6				
7				
8				
9				
10				
Total:				\$ 2,172,844.00

Map of Proposed Broadband Expansion in this Application

All locations included in the proposed Town of Warren project, as shown in the map below, are within the eligible area for Broadband Expansion Grant Map as viewed on March 14, 2022. No ineligible locations according to this map are included in the application.

A detailed KMZ file of the proposed area shared with the PSCW Broadband Office

The letters V, W, G, and B below, with number assignment indicate hand hole locations for the project.



As shown on this map, Baldwin LightStream's Town of Warren project area includes 506 unserved and underserved locations. There are 142 unserved or underserved non-agricultural small business/work from home locations, 48 agricultural/farm location and 316 unserved or underserved residential locations. Estimated unserved areas are at handholes B-3, G-4 and G-4.5.

AT&T states that their DSL service provides a 6 Mbps connection. This may be true at their cabinet, but residents of the area state that the bandwidth decreases the further away that you get from the electronics. From the letters of support that were received and are included in this application it appears that there are more unserved areas than the PSC map is showing.

This application is for reliable Fiber to the Home broadband connections likely to last for 25-50 years. LTD Broadband is a wireless RDOF auction applicant in parts of the town. While Baldwin LightStream supports the position taken by several state broadband commissions and associations doubting that LTD has the technical, engineering, financial, operational, management, staff, and other needed resources to meet any RDOF build-out and service obligations by December 31, 2024.

Executive Summary

Baldwin Telecom, Inc. (BTI) is partnering with the Town of Warren in submitting this application for a grant in the amount of \$2,005,702. The Town of Warren has pledged \$184,007 of their ARPA Local Recovery Funds and BTI board of directors approved \$1,988,837 for the buried fiber project. This grant will provide high-speed broadband to all 506 eligible locations in Town of Warren. The proposed project area is located adjacent to BTI's successful CLEC serving areas of the Village of Roberts and Town of Hudson. The project will be an extension of existing fiber optic facilities. The residents of Town of Warren currently do not have a broadband provider as defined by the PSCW.

This project will benefit all eligible locations in the Town of Warren, St. Croix County. This area features geography designated as unserved and underserved in the PSC Broadband Map as viewed on March 8, 2022 and is therefore eligible for the Broadband Expansion Grant. This is Baldwin Telecom's third broadband grant application for this community. The application includes more than forty letters of support from residents of the proposed project area. The letters express their need for high-speed broadband and frustration with lack of response from incumbent providers.

This grant application is for the installation of fiber-based broadband to 316 residential and 190 non-agricultural and agricultural small business locations in the Town of Warren with expected growth as residents of this area are able to subscribe to their first available fiber-based broadband internet service. Traveling on I-94, the Town of Warren is located just twelve miles east of the city of Hudson which is growing at a rate of 1.17% annually. According to the UW-Madison Applied Population Laboratory, St. Croix County is projected to gain 41% percent grown from 2010-2040, the highest percentage gain in the state. Town of Warren is a rural community comprised of farms and residential developments. Many young families live in the area. The proximity to I-94 allows residents to live in a quiet, picturesque rural setting and work in the metropolitan cities of St. Paul and Minneapolis.

Incumbent providers serving the proposed grant areas have not been responsive to the broadband needs of the area. Broadband infrastructure is costly to build in rural areas and the Town of Warren project has significant variations in customer density as noted on the map on page 6 of this application. Some sections of the town are more populated while others only have one or two houses per mile. Mary Ricci lives at 1077 96th Ave and was served by AT&T. When she contacted the company regarding high-speed broadband she was told that their facilities were not capable of high-speed and there weren't enough homes to justify upgrading the area. Jason Madlung lives at 1005 110th St and AT&T offered him an expensive hotspot with small data caps as a solution.

Although the COVID-19 pandemic is disrupting our lives less and less, it intensified the need for high-speed broadband in the proposed area. When Wisconsin schools closed in March, 2020, students in the Town of Warren struggled due to the lack of high-speed broadband. During the pandemic area doctors and medical facilities expanded their use of telehealth to screen and treat patients. A Warren resident stated that they weren't able to set up video visits using satellite internet as the videos were grainy and the audio was distorted and slow. A number of Town of Warren residents were affected when companies forced their nonessential employees to work from home. Warren residents reported frustrations with their connection dropping while presenting on Zoom and files taking a long time to load. Although working from home was initially considered a temporary situation, it has become a permanent situation for many workers. Some employers closed their brick-and-mortar businesses. The lack of high-speed broadband in Town of Warren makes it difficult for residents to stay connected. Although no longer required to social distance, the use of Zoom meetings, video chats, online banking, and online shopping is the norm. COVID-19 forever changed the way that we live and increased the demand for high-speed broadband in the proposed project area.

Small business owners in Town of Warren report needing to rent office space in nearby towns because they are not able to run their business without high-speed broadband. A resident wanting to start a photography business is struggling due to lack of high-speed broadband. An AIRBNB is finding it difficult to promote her rental location. Residents must continue to commute to their employment in the Twin Cities, some spending a minimum of two hours per day on the road. One resident recently built a new home and was not informed that there wasn't high-speed broadband in the area. They have faced many challenges meeting the internet requirements of their employer, the Department of Defense.

Realtors say that having high-speed internet in a rural area significantly boosts the selling price of a home. This adversely affects the property owners in Town of Warren. Some have expressed that they are considering selling their home and moving to a location where high-speed broadband is available but they are concerned that there will not be buyers for their property. One respondent stated that he recently built a new home in the area not knowing that there wasn't high-speed broadband service and now he regrets building there. Many young adults from the area will move away to attend school and will never return to the area if high-speed broadband isn't available.

BTI has a strong history of anticipating and meeting the demands of its customers. We have been successful in expanding to provide services in neighboring communities. The company has provided voice service for 122 years. In the early 1980s BTI built a cable TV system and provided service to the residents of the villages of Baldwin and Woodville. In the mid-1980s the cable TV service was extended to the neighboring village of Hammond and nearby village of Knapp. In the early 2000s BTI purchased the village of Roberts cable TV subscribers from Vision Communications and the Town of Hudson cable system from North American Communications. For several years BTI has been providing internet service, initially using cable modems in cable TV areas. BTI was one of the first independent telcos in Wisconsin to install Fiber to the Home (FTTH) facilities in the early 2000s. In 2008 BTI began upgrading rural ILEC customers to fiber and was able to offer cable TV services to the rural customers. In 2010 BTI was awarded a \$9 million federal grant/loan to build out fiber optic facilities in the unserved Town of Troy. In 2017 BTI completed the upgrade of rural ILEC subscribers to fiber. In 2020-2021 the ILEC villages of Baldwin and Woodville were upgraded to fiber. Earlier this year, BTI doubled the speeds of its broadband offerings to residential and business customers.

The proposed Town of Warren project will provide an opportunity for its residents and businesses to access high-speed fiber-based broadband. Just as electricity transformed rural America nearly a century ago, Warren Township needs high-speed broadband service today.

Mandatory Application Requirements

3.2.1 Applicant identification and contact information

The name and address of the entity applying for the grant, and the mailing address, telephone number and e-mail address of one or more contact persons representing the applicant.

Baldwin Telecom, Inc. dba Baldwin LightStream
930 Maple Street, PO Box 420, Baldwin, WI 54002
Phone 715-684-3346
Email mspark@lswi.net

Baldwin Telecom, Inc. (BTI) is an Incumbent Local Exchange Company (ILEC) and Competitive Local Exchange Company (CLEC) certified to provide telecommunications service in the State of Wisconsin. In 2015 began using DBA of Baldwin LightStream. The new name demonstrates the company's shift from landline phone service to broadband and attention to staying at the forefront of technology.

BTI provides voice, video and broadband services in the ILEC servicing area of Baldwin and Woodville in addition to the villages of Hammond, Roberts; towns of Hudson and Troy; select business locations in the cities of Hudson, River Falls and New Richmond. BTI provides video and broadband service in Knapp also.

BTI is owned by 229 stockholders. More than 60% of the shares are owned by stockholders living in Wisconsin. The Board of Directors and management team live in the community and serve on boards of community organizations.

b. If the application proposes a public-private partnership, the identity and contact information for all application partners.

Our partner, the Town of Warren, executed a Broadband Forward! Ordinance that is a partnership agreement for the purpose of this application. The Town agrees to expedite and limit the efforts BTI requires for permitting.

The Ordinance is included as Exhibit A of this application has been submitted to the Commission.

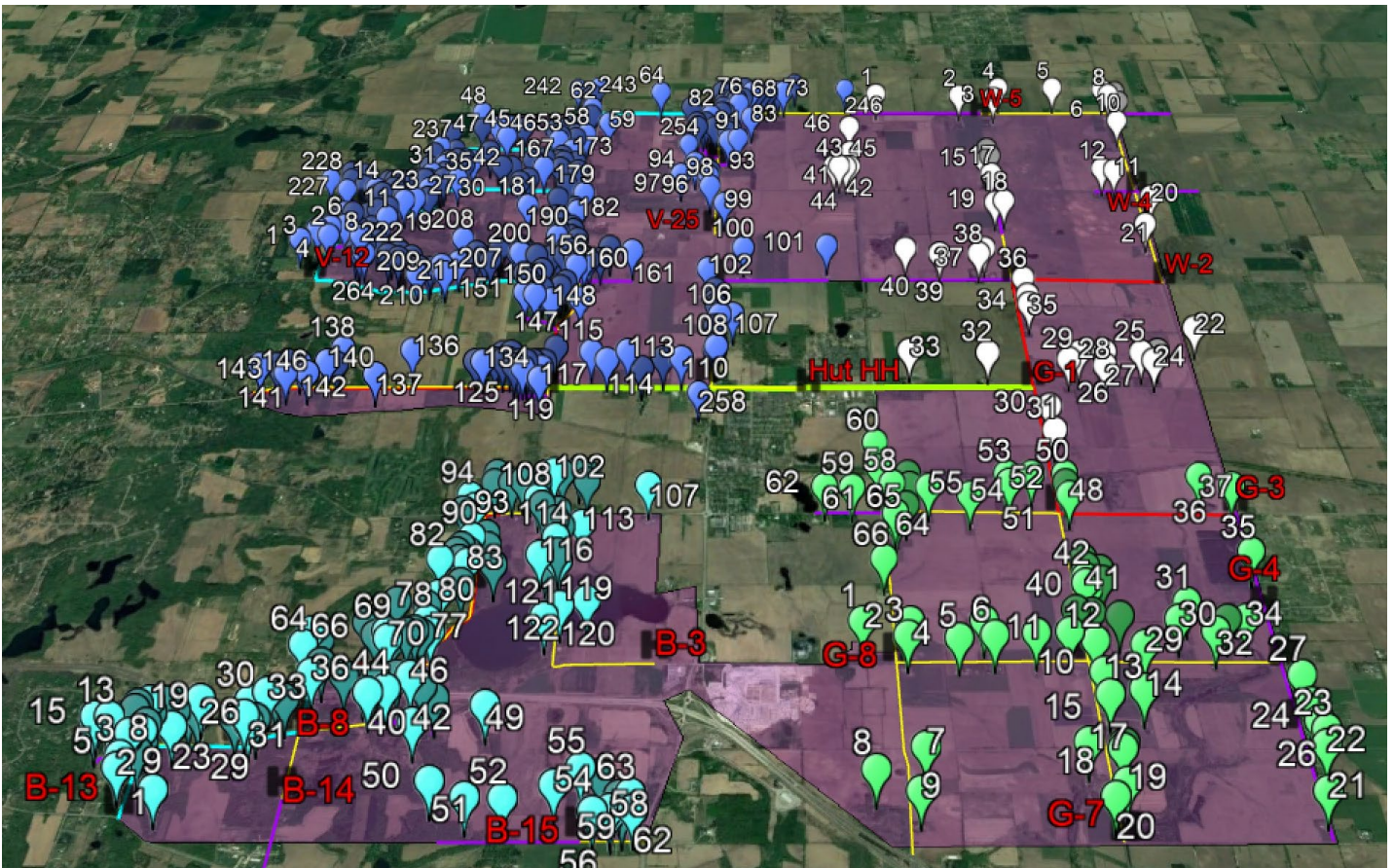
Town of Warren, St. Croix County
720 112th Street, Roberts, WI 54023
Gene Hanson, Town Chairperson townofwarrenwi@msn.com
Deina Shirmer, Town Clerk and Treasurer office@townofwarren.com
Phone 715-749-90

c. The application must show that the applicant is an organization, a telecommunications utility, or a city, village, town, or county that has established a legal partnership or joint venture arrangement with an otherwise qualified organization or telecommunications utility, and as such meets the eligibility requirements set forth in Wis. Stat. § 196.504(1).

Baldwin Telecom dba Baldwin LightStream is certified to provide telecommunications service in the State of Wisconsin pursuant to Section 196.50(2)(b) of the Wisconsin State Statutes.

3.2.2 Description of the project

a. A static map and description of the area of the state that will be affected by the proposed project.



This application for Town of Warren is an extension of BTI's existing fiber optic facilities. BTI has facilities to numerous customers along US Hwy 12 in the Village of Roberts and the Town of Hudson. The Town of Warren is located between these two CLEC areas. In the map above, the project area is shown in purple. The different colored dots depict zones in the project.

Portions of the Town of Warren are often times referred to as bedroom communities as many of the residents are younger adults that commute to the Twin Cities for their employment but wish to raise their family in a rural community. According to the most recent United States census data, St. Croix County had a growth rate of 1.09% in the past year.

The agricultural locations in Town of Warren vary from 10 to more than 500 acres. Some are dairy farmers while others are crop farmers. A tree farm and a trout farm are also in the area.

There are several small business owners living in the area including Kul Mocks-Craft Mocktails, a certified personal trainer, a photographer, a financial advising firm owner, an eBay business owner, an AIRBNB owner, a heating and cooling business owner and more.

- b. If the project area lies within a census block designated as served on the PSC Broadband Map, provide additional documentation to demonstrate the actual broadband service that is available in the proposed project area. **The project area does not include census blocks designated as “served” according to the state’s Broadband Map. All locations are unserved and underserved.**
- c. An explanation of how the proposed project will increase broadband access.

This proposed fiber project increases access to high-speed broadband and benefits the local community in many ways:

- **Will provide the opportunity for all eligible locations to connect to a FTTH network in areas where no fiber based broadband is available or proposed. FTTH connections provide the fastest and most reliable access to high-speed broadband.**
 - **Will provide the opportunity for residential and small business owners to subscribe to service at and above Wisconsin’s 25/3 Mbps minimum. Larger business customers will have scalable options starting at 200 Mbps. The fiber based service can be scaled to meet customer needs.**
 - **Will provide for the construction to be completed quickly.**
 - **Will provide an opportunity for residents to work from home rather than commuting to their job.**
 - **Will provide more opportunities for residents to access online healthcare.**
 - **Will provide increased educational opportunities for families including the ability to complete homework “at home” and enroll in online classes.**
- d. A statement whether the proposed project is targeting the “last mile,” “middle mile,” or backbone portion of the broadband infrastructure.

BTI will be responsible for the installation of last mile fiber based broadband backbone facilities in the public right-of-way in the proposed areas. The installation of fifty two (52) miles of mainline fiber will provide all eligible locations the opportunity to connect high-speed broadband services derived from fiber local loop connections.

No middle mile infrastructure, or costs, are included in this grant application.

BTI maintains sufficient middle mile and backhaul facilities and capacity on its existing backbone ring network to deliver high-speed broadband services to all proposed and future last mile subscribers in the area.

- e. A description of the broadband service to be provided, including estimated download and upload speeds, whether the speed is based on dedicated or shared bandwidth, and the technology that will be used. This description may be illustrated by a map or schematic diagram, as appropriate.

All eligible locations will have the opportunity to connect to FTTH services, with speeds based on dedicated facilities and bandwidth.

The initial service options available to residential customers will be expanded over time to meet demand and market pricing, with fiber-based capability to provide symmetric 1Gbps internet services. BTI consistently monitors usage and has been increasing bandwidth in service offerings with no increase in rates. Earlier this year BTI doubled the speed in its residential and business offerings.

Current popular residential offering in existing ILEC and CLEC areas:

NetStream	200Mb download/75 upload stand-alone Internet	\$ 94.95
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Higher speeds are available on an individual case basis and can be bundled with voice and Cable TV services.

Business Class Symmetric Internet Offerings

200Mb	price varies depending on term
300Mb	price varies depending on term
500Mb	price varies depending on term
750Mb	price varies depending on term
Full Gig	price varies depending on term

- f. For middle mile projects:

This is not a middle mile project.

- g. A schedule by which the applicant intends to complete the components of the proposed project.

As this application is for last mile mainline, BTI will obtain required permits and finalize agreement with contractor as soon as we receive notification that grant has been awarded.

Installation of fiber facilities will be completed during the 2022 construction season, weather permitting.

All connections will be completed in 2023, well in advance of the Performance Period.

3.2.3 Itemized Budget

- a. In addition to the Summary of Project Budget that is included as page 3, applicants should include a price list or quote for any equipment the applicant intends to purchase, including capital expenditures. The application should also indicate whether any facilities involved would be owned, rented, or leased.

Project costs are shown in Exhibit **B** of this application.

The Town of Warren project will be turn-key project. The hired contractor will be responsible for plowing mainline, drops and completing the splicing and testing to all eligible locations for the cost of the project. Baldwin Telecom, Inc. personnel will install all electronics and turn up services.

The total equipment cost of \$286,389.00 is comprised of \$199,402.00 for ONT's and \$86,987.00 for routers.

BTI will be providing the latest carrier grade next generation Wi-Fi 6.1 router when connecting Town of Warren customers. A fiber connection to the home and this state of the art router will provide a great customer experience.

The Baldwin Telecom, Inc. Board of Directors authorized manager Matt Sparks to work with the Town of Warren on applying for this Broadband Expansion Grant. They further approved the use of company resources and funds for the proposed project.

The Town of Warren commits to quickly approving all necessary permits at a reasonable price.

All parties are committed to the proposed project and know how important it is for the continued success of the residents in the Town of Warren.

- b. The application must show that the grant, if awarded, will not subsidize the expenses of a telecommunications provider or the monthly bills of telecommunications customers. For purposes of this grant program, subsidy means a contribution to the operating costs, including profit, of the telecommunications provider.

Baldwin Telecom will not use any of the proceeds of a grant award to subsidize non-construction expenses, or to subsidize billings to its telecommunications subscribers.

If BTI is awarded this broadband grant, all of the funds will be used for fiber facilities to provide services to the 506 eligible locations in this application.

- c. The application must show that the grant funds requested will be used for the sole purpose of constructing broadband infrastructure in the underserved areas covered by the application. Construction of broadband infrastructure may include any of the following:

BTI will use all grant funds requested for the sole purpose of constructing broadband infrastructure in the underserved area covered by our application. Construction of broadband infrastructure affirmatively will be limited to the following:

- Project planning that takes place during the performance period.
- Obtaining construction permits and Rights of Way.
- Construction of facilities, including construction of last mile infrastructure.
- Installation and testing of the broadband service.

3.2.4 Priority factors supporting the application

a. Matching funds. A description of the matching funds the applicant will invest in the proposed project, if any. For each element, indicate the type of match (cash, salary expense, or in-kind contribution). If the application is submitted by a partnership, identify the partner responsible for providing each element of the proposed matching funds.

- If available, provide documentation to support an offer of matching funds (minutes of a town board meeting, a letter from a prospective customer or local government official, etc.).
- Matching funds contributions must be a firm commitment of funding to the project. Contributions that vary based on the amount of actual sales, customer contributions, or other criteria will not be given weight.

The Town of Warren has pledged \$184,007.32 from the American Rescue Plan Act to this broadband grant application, in cash, contingent upon BTI's award from the PSCW. Documentation is provided.

b. Public-private partnerships. If the public-private partnership is memorialized in a joint venture agreement or other writing, provide a copy of that agreement.

- If the partnership has not been reduced to a written agreement, provide a short description of the management role, financial commitment, or other contribution to the project for each participating partner.

Town of Warren has pledged \$184,007.32 from the American Rescue Plan Act to this broadband grant application.

Town of Warren
720 112th Street
Roberts, Wisconsin 54023
Tel: 715-749-9013 ** Fax: 715-749-9014
www.townofwarren.com

Chairman:
Geno Hanson

Supervisors:
Dave Cave
Debbie Delander
Grace M. Hoyer
Gerald Mueller

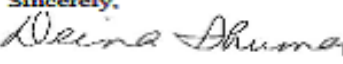
Clerk/Treasurer:
Deina Shirmer WCPC CMTW

February 22, 2022

Baldwin Lightstream
PO Box 420
Baldwin, WI 54002

Dear Baldwin Lightstream:
Please find below the motion from the February 21st meeting of the Warren Town Board.

Reaffirm set aside ARPA Funds for broadband grant match. On July 19, 2021, a motion was made to dedicate the American Rescue Plan Act local recovery for the 2021 Baldwin Lightstream Broadband grant application. The new grant needs the same dedication. MOTION (HOYER/DELANDER) DEDICATE \$184,007.32 ARPA LOCAL RECOVERY FUNDS FOR 2022 BALDWIN LIGHTSTREAM BROADBAND GRANT MATCH, MOTION CARRIED.

Sincerely,

Deina Shirmer WCPC
Clerk/Treasurer

- In scoring this element, information regarding active engagement of diverse communities in the planning, permitting, or marketing of the project will be given weight as well.

The Town of Warren is an important partner in this project. BTI has been working with the town board members for more than ten years. Through its Broadband Forward! Ordinance, it is expediting permitting, limiting permitting expenses, and providing team-like responses to our requests to have this project completed quickly.

- c. **Existing broadband service.** A list of the broadband service providers, if any, currently serving the area the applicant proposes to serve. In scoring this element, the following factors will be taken into account:

The project area in this grant application is eligible according to the Wisconsin Broadband Map viewed on March 8, 2022. Using this map, no subscribers in the proposed project are receiving a 25/3 broadband service from a current incumbent provider. Customers of the incumbent provider state that the service is slow and consistently drops making it difficult for them to use the service. One resident stated that the incumbent provider offered an expensive hot-spot with small data caps as a solution to his requests for a faster connection. Most residents state that they are using a satellite service and/or hotspot. Further, there is no indication that incumbent wireline providers will be upgrading facilities.

The Town of Warren is in RDOF auction area and LTD Broadband was the winner of the area. BTI supports the position that several state broadband associations have taken in doubting that LTD has the technical, engineering, financial, operational, management, staff, and other needed resources to meet RDOF build-out and service obligations by December 31, 2024.

- The degree to which the proposed project avoids duplicating existing broadband infrastructure.

This application does not duplicate existing broadband infrastructure based on the PSCW and FCC guidance defining broadband as landline 25/3 Mbps services. In addition, it does not at any point appear to duplicate another incumbent provider's known plans to deploy 25/3 Mbps broadband services by the time this application proposes to sign-up new broadband internet services.

- The application of a wireless broadband service provider proposing significant overlap with existing broadband service in addition to service to an unserved area will not be given priority consideration.
- Provide a list of all landline broadband service providers (DSL, cable or fiber to the home) and fixed wireless broadband service providers that overlap the footprint of the proposed broadband project.

Incumbent providers Town of Warren

- AT&T Wisconsin – from 3/.384 to .768/.128 DSL to the south and east
- Frontier –1/.128 Mbps on the west portion

The central area of this portion is unserved; other portions underserved

- If known, provide an estimate of the customers within the proposed footprint that are served by competing landline and fixed wireless broadband service providers, and the download/upload speeds offered by those competing service providers.

It is unknown how many customers in the Town of Warren are served by competing landline and fixed wireless broadband service providers. Most locations in the area subscribed to voice services from their incumbent provider at some point in the past and may have also been connected to DSL service. Due to the slowness and unreliability of the service, many customers have disconnected the service. From the letters of support it is known that many are either using a Satellite service or a hotspot.

- Provide a list of mobile wireless broadband service providers that overlap the footprint of the proposed project.

Four CMRS cellular carriers advertise coverage of portions of the application area, AT&T, Sprint, T-Mobile, and Verizon Wireless. We have evidence that Verizon offers a wireless data service of 3/3 Mbps in the Three Lakes portion of the application area, and presume adequate 4G and eventually 4GLTE access will expand north and south of Interstate 94.

- If known, provide an estimate of the customers within the proposed footprint that are served by competing mobile wireless broadband service providers, and the download/upload speeds offered by those competing service providers. (The presence of existing mobile wireless providers does not contribute to or affect the evaluation of existing broadband service in the project area for purposes of priority consideration, but provides a more complete picture of the broadband options available to residents.)

It is unknown how many customers in the Town of Warren are served by mobile wireless broadband service providers.

- For middle mile projects, describe the unserved and underserved areas that the middle mile route will transit. In scoring this element, the following factors will be taken into account:
 - The number of unserved and underserved service locations that could potentially connect through the proposed middle mile route.
 - The degree to which the middle mile route will reduce the cost of extending fiber to the premises broadband service to business and residential service locations in an unserved or underserved area.
 - The degree to which the proposed middle mile route avoids duplicating existing and planned fiber to the premises broadband infrastructure.

This is not a middle mile project.

- d. Project impact.** A description of the geographic area and the population, both in terms of absolute numbers and likely users, which will be served by the proposed project. Indicate the number of anticipated residential and business customers in the project area, if known. Explain the speed and quality of internet service that will be available. Include information about the range of packages available for purchase. Provide details on any low-income access programs and steps the project will take to support adoption

There are 316 residential, 142 non-agricultural small business/work from home and 48 agricultural/farm locations in the project area that would benefit from the availability of high-speed broadband. The Town of Warren has many young families living in it. These residents have greater demands for the latest technology. They are increasing growing more frustrated that the incumbent providers have not been responsive to their requests for high-speed broadband.

As mentioned throughout this application, we know that a high-speed broadband connection will make a huge difference in the lives of the people of Town of Warren. Many of the school age children attend St. Croix Central Schools. Tim Widiker, Superintendent of St. Croix Central School District, stated that approximately 200 households in the Town of Warren would benefit from a broadband connection. The school issues Chromebooks to every student in grades 3-12, but many are not able to use their Chromebooks at home. They must either complete the work at school or go to a location that provides Wi-Fi. Some students in the Town of Warren attend Hudson Schools. Nick Ouettette, Superintendent of Hudson School District, states that the district uses broadband services to provide virtual instruction; access to student grades, assignments, attendance; on-line classroom textbooks; on-line homework; communication to connect families with school news; and emergency alerts. Not having a high-speed broadband connection makes it very difficult for parents and students to use the services that the district provides. In addition, high-speed broadband would provide more opportunities for students to enroll in online classes offered by Northwood Tech (formerly WITC), CVTC and the nearby Wisconsin Universities of River Falls and Stout, and numerous universities in St. Paul and Minneapolis.

Although Telehealth services are offered by Hudson Hospital & Clinic located in Hudson, Westfields Hospital & Clinic, located in New Richmond, River Falls Area Hospital, located in River Falls and Western Wisconsin Health, located in Baldwin, the lack of high-speed internet makes it difficult for the residents of Warren to take advantage of the offerings. A high-speed broadband connection would allow greater use of telehealth services.

The pandemic isn't disrupting lives as much as in the past two years, but the residents of Town of Warren are frustrated that without a high-speed broadband connection they are not able to access online church services, meetings and family gatherings that have become the norm.

BTI has working with the Town of Warren for nearly ten years to find a way to expand its service to the area. The town board has reached out to other communication companies, but none have been responsive to

their requests. According to Gene Hanson, Chairman of the Town, “Baldwin LightStream has been by far the most proactive provider we have worked with”. Although there have been several federal programs that have expanded high-speed broadband infrastructure in unserved rural areas, the incumbent provider has not applied for funding to provide broadband services in the Town of Warren. Since there is continued growth in St. Croix County, one might wonder why the incumbent provider has not made upgrades to their facilities. As shown in the Summary of Project Budget and Funding Statement on Page 5, it is expensive to install fiber due to the density of the project area.

Survey research was one tool used to document opportunities to gain economic impact for this application. When BTI reached out to the Town of Warren regarding a broadband grant opportunity the Town of Warren Chairman and Broadband Committee members went door to door distributing surveys to the residents. More than 50% of the residents returned the survey, which was as expected outside of the traditional Baldwin ILEC area.

In the survey we asked residents how likely they would subscribe to Baldwin Lightstream broadband if it were available in their area. The responses were very favorable, and within tolerance to recommend proceeding with an application:

- 92% Definitely or probably would subscribe
- 8% Might/Might Not/Definitely will not subscribe

From the 98 survey returned surveys we learned each demographic has its needs for high-speed broadband:

- 44% of the households reported having school age children that need broadband to use Chromebooks
- 75% of the households reported having an opportunity to work from home; many do not or cannot
- 10% of the households reported having medical conditions that could be monitored from home with telehealth
- 67% of the respondents use a hotspot or satellite internet which are costly and unreliable
- 18% of the respondents reporting using a DSL or fixed wireless service
- Respondents reported spending between \$100.00 and \$600.00 per month for voice, data and video services with the average cost being \$281.00 per month

Since BTI is a participant in the Affordable Connectivity Program, eligible consumers living in the Town of Warren would receive a monthly discount of up to \$30 towards broadband internet service. In addition, eligible consumers would receive a one-time internet connection device reimbursement of up to \$100 for a laptop, desktop or tablet. BTI will consider applying for ETC status in the grant area based on demands for voice service same as RDOF areas. BTI participates in the Department of Public Instruction and CESA’s purchasing Digital Learning Bridge.

The Town of Warren is a beautiful rural area in a fast growing county. How will they be able to attract buyers to the area if high-speed broadband is not available? Who will fill the job openings in the county? BTI strongly believes the Town of Warren project will have a clear and continuing impact on the area and lead to population growth and an increase in employment opportunities.

If awarded the grant, BTI will work with the town clerk to communicate construction plans, service offerings and promotions. BTI will also use Facebook and other social media platforms to keep residents informed of the progress.

From letters of support we learned the following:

- Many students in the Town of Warren attend St. Croix Central Schools in Hammond, WI. The district implemented the use of Chromebooks during the 2015-2016 school year. Respondents stated that the lack of a high-speed internet connection at their residence meant that their school age children had to complete their “homework” during school hours, find another location to complete their schoolwork and/or use a cellphone. Some respondents stated that they went to the nearby McDonald’s to use their Wi-Fi. There is growing concern that students without broadband connection may fall behind. In addition, parents expressed difficulty in accessing grades and other notifications that the school district provides. The January 22, 2016 edition of RiverTowns.net included an article on St. Croix Central School’s use of Chromebooks. In the article Technology Integration Specialist Dan Ruud stated “parents who live in the town of Warren are reporting more dead zones than any other spot in the district”.

- Although many of the survey respondents stated that their employer offered a work from home option, most were not able to take advantage of this opportunity due to poor internet connectivity. Studies have shown that the ability to work from home provides the flexibility and balance that workers are seeking. In addition, more employers are offering work-from-home options as a way to attract employees in a tight labor market. During the COVID-19 pandemic, when Wisconsin adopted “social distancing” measures, businesses closed and enacted stay-at-home orders. Town of Warren residents stated that their lack of broadband service made it difficult or impossible to work from home and use video conferencing.
- From the most recent survey, 10% of the respondents reported having medical conditions that could be monitored from home if they had a reliable broadband connection. Statics show that use of wearable technology has more than tripled in the last four years. During the COVID-19 pandemic, telehealth increased access to care as a way to reduce exposure to disease, reduce use of personal protective equipment and reduce demand on facilities. A letter of support from a Town of Warren resident stated that he was not able to set up a “Video Visit” with his doctor due to the lack of broadband.
- All of the letters of support from Town of Warren residents state their frustrations with their current situation. They are not able to use smart home devices including security systems. They are not able to start up home based businesses. Some are concerned about the ability to sell or transfer their property. Others are considering moving to a location where high-speed internet is available even though their rural setting is where they want to be.
- BTI believes that the proposed project will provide more options and possibly save money for the Town of Warren residents. Although using a hotspot works for some, there are disadvantages including speed, battery usage, potential for a cap on data usage, and security risks. For those residents using a satellite connection, they experience poor latency, signal issues, poor quality, high costs and most importantly the ability to use a VPN.

In addition to the survey responses from residents, prospective subscribers, professionals and elected representatives spoke to BTI’s manager and staff regarding the need for fiber-based internet services in the Town of Warren.

Letters from Town of Warren residents state the following concerns with their current internet provider and how the pandemic has increased the need for broadband:

- Slow internet speeds and unreliable connection.
- Satellite internet service goes out when it storms.
- Satellite internet is costly, approximately \$180/mo. for data and download speeds required for working from home.
- Ability to sell their home and the resale value of their home without a broadband connection.
- Inability to make technological improvements that require Wi-Fi.
- Inability to connect with family and friends using Skype or Zoom caused feeling of isolation for some during the COVID-19 pandemic.
- Difficulty launching new home based businesses.
- Having to invest \$1,500 in cell phone booster and use hotspot.
- Having to rent an office in town to conduct business.
- Frustration in being told by AT&T that they would have high-speed internet in 30 days in 2006 and still not having the service.

No residents have a 25/3 broadband connection from their current incumbent providers in the eligible grant area. The cell towers are primarily located along the I-94 corridor and those living any distance from the towers experience reduced signal strength.

BTI’s high-speed broadband service would make it possible for all eligible locations in the Town of Warren to subscribe to a reliable high-speed broadband connection.

In addition to the survey responses from residents, prospective subscribers, professionals and elected representatives spoke to Baldwin LightStream regarding the need for fiber-based internet services in the Town of Warren application area.

Here's what they told us in summaries of support letters to us. Full copies of these letters are included as Exhibit D of this application:

State Representative Shannon Zimmerman

- St. Croix County is projected to gain an astounding 41% population growth from 2010-2040.
- Broadband access is needed for economic growth.
- Having access to broadband is a make or break decision for people moving to the area.

State Senator Rob Stafsholt

- Internet access will boost local economic development
- Internet access will allow students and families to study and work from home
- Faster more dependable internet will allow residents to use telemedicine and other technologies.
- Baldwin LightStream has an excellent reputation in community.

Tim Widiker, Superintendent St. Croix Central School District

- The School District uses Chromebooks in grades 3-12 and students in grades 6-12 can take Chromebooks home to do their "homework".
- Internet service in Warren Township is poor
- Students aren't able to use the Chromebooks as intended.
- When school closed in spring 2020 due to COVID-19, students faced many challenges

Geno Hanson, Chm, Town of Warren

- The Town Board received many calls, emails and texts requested better broadband services for work at home, remote learning and telehealth. The pandemic has made this worse. Broadband is not a luxury, but a necessity for us.
- Baldwin LightStream has been a better partner than other providers for us.
- Town has confidence that BTI can get the project done.

Todd Imboden, member of Warren Broadband Committee

- Employer permanently closed Woodbury, MN office and now required to work from home permanently.
- Considering selling his house so that he can move where there is broadband service.
- His children are missing online educational opportunities.

Jason Madlung, 1005 110th St, Roberts

- He and spouse have option to work from home permanently but current internet prevents both working at same time. Reports it taking 10 minutes to download Microsoft Project. When presenting, the connection drops so he must rely on co-workers to present for him.
- Three children cannot use Zoom classroom.
- Had to cancel CBS online after 30 days because internet speed was too slow for it to work.
- AT&T has been unresponsive, offered him an expensive hotspot with small data caps.
- Concerned about marketability of house.
- "Good internet speed will be a necessity just like electricity."

Tim and Monica Moulton, 1136 109th St, New Richmond

- Tim is a retired engineer and is unable to accept part time engineering opportunities.
- Unable to use EERO home Wi-Fi system.
- Currently using AT&T hotspot that slows down when they hit data limits of 20 GB.
- When family comes to visit they need to go to library, coffee shop, restaurant or a relative's house to use the internet.

Max Hanson, 1406 County Road TT, Roberts

- DSL service from AT&T is expensive, slow and unreliable. Service consistently drops.
- Unable to stay connected with children and grandkids.

Devin Bohlken, 963 105th Avenue, Roberts

- A six-year resident limited to dial-up service or expensive satellite that performs only intermittently.
- Painful experience with low connectivity while in an adult nursing training program and now cannot access telehealth video.

- Fearing poor outcomes ahead with remote learning and employment security.
- “For my family Broadband is not just a necessity right now but a necessity for success for my child’s future.”

Derek Palmer, 1128 109th St, New Richmond

- Uses a Verizon brand 5G mobile hotspot that doesn’t work well. Verizon states that at his location they cannot guarantee advertised speeds.
- HughesNet doesn’t work due to wooded area.
- Wife has photography business and needs to drive to Hudson or Stillwater to use Wi-Fi to upload photos to clients.
- Concerned how lack of internet will affect his children that will be going to school soon.

Jody Dalske, 722 107th St, Roberts

- Unable to work from home.
- Unlimited high-speed Verizon wireless service too costly for her family.
- School provided additional jetpacks for children to use Chromebooks during quarantine.
- Has Dish for entertainment and experiences issues when weather is bad.

Bob Stanislaw, 1085 100th Ave, Roberts

- Pays high price for slow satellite connection.
- Children need better system for doing their homework.

Janelle Pizzi, 826 110th St, Roberts

- Working from home full-time for a large corporation.
- Wi-Fi kicks her off and she needs to reboot when she should be leading a meeting.
- Son was a virtual student due in 2021 due to health conditions.
- AT&T is her internet provider but their service was grandfathered.

Julie Stucky, 1123 100th St, New Richmond

- Has lived in Warren for 8 years.
- She and her husband unable to attend virtual meetings at the same time.
- At times must use cell phone hotspot.

Kelly McNamara, 2520 170th Ave, Emerald

- Has lived in Warren for 18 years.
- Employer paid for satellite internet system but the speed was too slow. Needed to find childcare and drive to Minneapolis to work. Inability to work from home has resulted in wear and tear on vehicles, fuel expenses and additional stress.
- Currently pays \$179/mo. for satellite internet and \$127/mo. for DishTv.
- “If we had known of this issue when we moved here from Kansas in 2004 we would have bought a house elsewhere.”

Patrick Swanson, 954 65th Ave, Roberts

- Recently built a house in Warren. Would not have built in Warren if they knew there were no internet providers in the area.
- Difficult to meet the requirements of employer, Department of Defense.

Kelli Palmer, 1128 109th St, New Richmond

- Used a Verizon hotspot but could only connect one device at a time. Disconnected when Verizon was not able to provide a 4G service.
- “Schools send children home with tablets to complete assignments in our area due to some pockets having access to high speed internet.” Unfortunately their two children cannot use the devices.
- Is a photographer and must drive 10 miles to do necessary work.
- Unable to use security cameras to keep home and property safe.

Bill Booth, 1020 110th St, Roberts

- Employed by Lumen and uses Verizon hotspot to work from home.
- Needs high-speed broadband for video calls

Brett Budrow, 1418 60th Ave, Roberts

- “Access to secure unlimited high-speed internet is an expected utility service, like electricity in the 21st century.”
- Uses internet for work, school, commerce and entertainment.
- “Broadband access for all is an investment in our community.”

Dawn Budrow, 1418 60th Ave, Roberts

- Using two Verizon hotspots and cellphones.
- Three people in household needing service. Full time college student taking online classes and doing assignments, husband who works from home occasionally and online systems trainer.

Jandi Casson, 759 103rd St, Roberts

- Using AT&T DSL.
- Has opportunity to work from home but cannot due to slow internet.

Chris Kelly, 1091 101st Ave, Roberts

- Using ViaSat 100GB plan that is very unreliable.
- Has been on Starlink list for more than a year.
- Needs better service to be informed of weather conditions and social dangers.

Chris Wagner, 1005 100th Ave, Roberts

- Needs broadband for school age child, work from home options, health care and staying connected.

Karen Melstrom, 998 110th St, Roberts

- Uses Excede service that is slow and unreliable. Cannot use two devices simultaneously.
- Has a Verizon hotspot with limited data.
- Four in household with three needing internet. Two are full time students and one adult works from home 75% of the time.

Brandon Graber, 982 101st St, Roberts

- Has lived in Warren for more than 12 years.
- Owns a financial advising firm using web based platforms. When working from home he needs to use his hotspot.
- Has young family.

Jim Winzer, 964 110th St, Roberts

- Needs high-speed broadband for his business.
- Operates an eBay business, selling and shipping 5 to 15 item per day.
- Uses Excede but speed is not as advertised and unreliable in inclement weather.

Darla Ramberg, 1128 100th Ave, Roberts

- Moved to Warren four years from Twin Cities.
- Is an educator and needed to sit in the parking lot at Roberts Library to put together lesson plans and add to district’s online program before subscribing to satellite internet.
- “Snow days have become a thing of the past for my school district in the Twin Cities metro area. We now have eLearning days, meaning I need access to reliable internet service. I also do lesson planning from home that requires access to the internet.”
- Uses social media to promote horse therapy program.

Michael and MaryJane Duffy, 952 110th St, Roberts

- Moved to Warren four years ago when they retired so that they could enjoy the quiet, peaceful country.
- Uses satellite internet that breaks up and stops working.

Greg Kane, 983 101st St, Roberts

- Has lived in Warren more than 10 years.
- Has two school age children that need internet for schoolwork. School provided a hotspot during the pandemic closure.
- Suffered a financial loss when wife was not able to work remotely during pandemic.
- Operates two businesses out of the home but must go to other locations to upload files.
- Cabins in northern Wisconsin have better service than Town of Warren.

Greg Bluhm, 1123 100th Ave, Roberts

- Moved to Warren in 2017 and is not happy with internet options.

Bob & Tonya Underdahl, 968 107th Ave, Roberts

- Built home 5 years ago assuming that high-speed internet was available.
- Have three children using Chromebooks.
- Run a family business, Assured Comfort Heating & Air Conditioning, out of their home using QuickBooks online and ordering supplies online.
- Has driven to Roberts Library parking lot to use their internet.

David Thorsen, 1094 89th Ave, Roberts

- Has lived in Warren for 56 years.
- Has AT&T as service provider.
- Wife had to drive to employment during pandemic.

Jeff Olson & Doreen Blohm, 1099 115th Ave, New Richmond

- Moved to Warren March 2020.
- Uses Verizon hotspot.
- Operate Sunrise Farm of Wisconsin, an AIRBNB rental.
- Needs high-speed broadband to complete bookings and promote business.
- Also needs to provide Wi-Fi service to guests.
- Would like to install cameras in barn to monitor animals.

Jeff Olson, 1084 110th St, Roberts

- Has worked from home for approximately 25 years using questionable satellite connection.

Angela Berends, 976 110th St, Roberts

- Needs high-speed internet for students and entertainment.

Mary Ricci, 1077 96th Ave, Roberts

- Has lived in Warren for 39 years.
- Has been a realtor for 26 years. Difficult to use Multiple Listing Services (MLS) without high-speed internet.
- AT&T told her that they could not provide high speed internet to her location and there weren't enough homes to justify the upgrade.

Mary Harmon, 1007 99th St, Roberts

- Internet service is low and costly.
- Wants to do business with a local company.

Nadine & Ron Beckwith, 1029 99th St, Roberts

- Works from home as computer programmer for Amazon.
- Uses Viasat internet that is slow.
- Wants BTI to come to their area.

Alan & Joyce Anderstrom, 1056 110th St, Roberts

- Has lived in Warren for 5 years.
- They have tried three internet providers. Currently they have a 4 to 6 Mbps connection.
- Will be hosting a national board of directors meeting this summer and doubt if they will have the service they need.

Barb Kaner, 991 107th Ave, Roberts

- Sad that Warren is less than 30 minutes from a major city and is does not have a high-speed internet provider.
- Fearful that people will overlook the community.

Cindy Redmon, 1091 110th St, Roberts

- Work from home but slow and unreliable internet make it difficult.

Natalie Hoppe, 990 110th St, Roberts

- Using several hotspots and cell phones.
- Daughter is a virtual student. Sometimes needing to use library, church and McDonald's to complete schoolwork.
- Husband is self-employed and works from home.
- Concerned about the sale-ability of their home.

Dan Tokheim, 990 110th St, Roberts

- Using 5 hotspots which they rotate throughout the month. Has tried satellite but latency issues made it undesirable.
- "We only have a "dial up" hard wire option for Internet (which is very slow) – no DSL, no cable and no fiber is available."
- Operates a business out of the home, Willow River Consulting, LLC.
- Has a full time virtual student and part time college student living at home. Wireless communications are not compatible for proctored test taking. Students are randomly blocked from taking the exam and must take an F.
- "Warren Township in St. Croix County Wisconsin – just 25 minutes from downtown St. Paul MN – has nearly eliminated itself from modern communication. It has hindered its businesses to communicate and its students to participate in learning activities."

Robert Wehausen, 1072 110th St, Roberts

- In the last couple of years the local telecom offered fixed wireless service to some residents in Warren. Speed is limited to an average of 30 Mbps if you have an unobstructed line of sight to a cell tower.
- When COVID-19 happened he was working from home, three children in the local school district were learning virtually and a college student was taking classes online. They had to upgrade all of their cellphones and use hotspots.

e. Scalability. A description of how the proposed project could expand or improve the broadband service it delivers, while maintaining the quality of its broadband service. This description should include specific projected increases in the following parameters that are known at the time of the application:

- The number of users.

BTI estimates an 85% to 90% take rate based on its successful execution in adjacent CLEC service areas of the Town of Troy and Town of Hudson and survey results as the residents of Town of Warren are pleading for a high-speed broadband service in their area. The proposed project is an expansion of existing FTTH facilities using core equipment.

- The number of network nodes.

The design of project is a central single node home run fiber.

- The number of services provided.

The proposed project will provide high-speed broadband, voice and video services.

- The geographic area served by the project.

The proposed project includes all eligible locations in Town of Warren, St. Croix County.

- This description may also include a discussion of possible growth potential that is outside the commitment the applicant is making as part of its application.

This project is intended to accommodate the growth in areas that are outside and contiguous to the FTTH grant areas. There is sufficient capacity in the proposed mainline fiber routes to accommodate growth. BTI will continue to use an active optical network instead of a passive optical network in these growth areas without the need for shared bandwidth.

This project initially deploys ultrafast broadband services over fiber facilities suitable for broadband at practically unlimited speeds, well in excess of the state's and the FCC's forward-looking, but only current, definition of broadband services as 25/3 Mbps. Any expansion areas outside the grant areas will be able to connect high-speed broadband, television, and all voice service features currently available to BTI's existing subscribers.

f. Economic Development. A description of how the proposed project will promote job growth or retention, expand the property tax base or improve the overall economic vitality of the municipality or region. This description may be supplemented with a letter from one or more persons discussing the potential economic impact the project could have for that individual or business. In scoring this element, the following factors will be taken into account:

- A discussion of potential economic impact the project could have for an individual business located in the project area.

Jeff Olson and Doreen Blohm purchased a 14 acre farm at 1099 115th Ave on March 18, 2020 and started Sunrise Farm of Wisconsin. Their business allows guests a charming farm stay. They use the AIRBNB booking platform and need a reliable high-speed broadband service to manage their business. In addition, they want to offer Wi-Fi service to their guests. Not having a high-speed broadband connection has made it difficult for them to manage their social media sites and attract customers. The proposed project would make a huge impact on this business.

- An explanation of how an improved download and upload transmission speed could better support a specific business in the project area.

Tim Moulton is a retired engineer living at 1136 109th Street. He has had numerous requests for his engineering services on a part time basis but wasn't able to accept the offers due to the lack of high-speed broadband. He used Frontier Communication's service in the past but their speed made it impossible for him to transfer files and participate in video conferencing calls. Currently he uses an AT&T hotspot, but the speed slows down when he reaches the 20GB data limit. The proposed project would allow Mr. Moulton to accept requests for his engineering services.

- An explanation of the likely impact improved broadband service could have on residential property values, supported by local sales data if available.

According to the ROCKET Homes website, St. Croix County is currently a Sellers Housing Market. The median sold price for homes shows an increase of 12.9% from just one year ago. In addition the number of homes for sale in St. Croix County is 2.5% less than one year ago. The 2015 study conducted by researchers at the University of Colorado at Boulder and Carnegie Mellon University show that a fiber connection increases home value by more than 3%. Increased home value means more revenue for local government and schools. Residents of Town of Warren are concerned that they will have difficulty selling their homes if high-speed broadband is not available.

- A demonstration of how improved broadband service to a residential portion of the project could benefit a telecommuting population.

According to data provided by the Census Bureau, St. Croix County workers commute an average of 26.2 minutes. Many workers have the opportunity to work from home but without a high-speed connection, they must travel to their place of employment.

- A demonstration of how the speeds and service being offered by the project fits with current and future economic needs of the community and local businesses.

The proposed project would provide opportunity for residents of Town of Warren to choose from numerous residential and business offerings starting with a 200 Mbps service. The speeds would make it possible to residents to have a house full of “connected” devices and operate a business.

- g. Effect upon broadband service to adjacent areas.** A description of whether the proposed project will or will not impair the ability of a broadband service provider or competing broadband service provider to extend broadband service to areas adjacent to the proposed project area.

This application is not likely to negatively impact broadband services availability from adjacent area providers. Quite to the contrary, the availability of FTTH broadband access in the proposed project area will served as a catalyst for demand in other rural portions of St. Croix County.

3.2.5 Other information supporting the application

- a. A description of applicant’s history or experience constructing broadband communications facilities in the state and elsewhere.
- If applicable, an applicant must comment upon the status of all prior broadband expansion grant projects that have been completed, including the type of broadband technology used, the facility route actually built or installed, the number of residential and business customers actually connected, and other relevant details of the prior project(s).
 - An applicant must also comment on broadband construction projects undertaken in prior years that were not funded in part by the Broadband Expansion Grant program.

Baldwin Telecom, Inc. (BTI) has been providing telecommunication services for 122 years. Baldwin Telephone Exchange was formed in 1900 to provide telephone service in the Baldwin-Woodville area. Throughout the years the company has always been an early adopter of new technology improving the quality of life for residents living in the communities that it serves.

In 2001 BTI began installing FTTH facilities in new housing developments. In 2002 the US Department of Agriculture recognized Baldwin Telecom, Inc. as the first independent telephone company in Wisconsin deploying FTTH in green field developments in the villages of Baldwin and Woodville. In 2006 Baldwin Telecom, Inc. received the first broadband loan awarded in state of Wisconsin by RUS to build out new developments in Town of Hudson using fiber. From 2008 to 2017 Baldwin Telecom, Inc. upgraded all of its customers in the rural ILEC service area of Baldwin and Woodville to FTTH. The fiber facilities allowed voice customers the option of subscribing to Cable TV and upgraded their DSL connection. In 2020 BTI upgraded the ILEC Villages of Baldwin and Woodville to fiber using an \$8 million RUS loan to complete the project. Initially fiber customers were able to subscribe to a 10Mbps connection. Today they are able to subscribe to a GIG/multi GIG connection.

In 2010 BTI was awarded a \$9 million federal grant/loan to install fiber optic cable in Town of Troy under the American Recovery and Reinvestment Act of 2009. The project was completed in 2011. Currently BTI has more than 1,500 customers in the Town of Troy.

In 2014 BTI extended its fiber network to the City of New Richmond and provides service to the St. Croix Health and Human Services, New Richmond School District, City of New Richmond, Westfields Hospital and many other key businesses. BTI continued the fiber network to the St. Croix Crossing, the bridge spanning the St. Croix River between Oak Park Heights, MN and Town of St. Joseph, Wisconsin. The bridge opened on August 2, 2017 and BTI is ready for the growth that is expected in this area.

When the FCC announced the opportunity for operators to bid on Rural Digital Opportunity Fund (RDOF) auction in 2020, BTI bid on several census blocks in St. Croix and Pierce County. BTI was successful in getting fifteen locations in two census blocks.

Throughout the years BTI has made a large investment in deploying and upgrading broadband service to the following areas:

<u>Construction Period</u>	<u>Area Served</u>	<u>Investment</u>
2006-2007	Town of Hudson – phase 1 upgrade portion of area to fiber	\$4,733,000
2011-2012	Town of Troy – complete new build	\$9,067,898
2015-2016	Businesses in City of New Richmond to St. Croix Crossing	\$2,000,000
2018-2020	Town of Hudson – phase 2 convert remaining areas to fiber	\$6,000,000
2020-2021	RUS loan to upgrade villages of Baldwin and Woodville	\$7,003,415
2021-2021	RDOF broadband – Coulee Road and Baer Drive	\$ 149,306*

*The investment for construction in RDOF broadband is only an estimate as the work has not been completed. BTI will receive \$11,370 of support over the next 10 years for this construction.

BTI currently provides broadband service to more than 9,000 residential and business customers in our ILEC and CLEC areas. BTI provides a GIG/Multi GIG connection to the schools of Baldwin-Woodville, St. Croix Central, Hudson, River Falls and New Richmond and several businesses.

The Town of Warren is adjacent to our existing Village of Roberts and Town of Hudson service areas. In conversations with the board members and residents of the Town of Warren, we anticipate that most of the residents will subscribe to broadband service as soon as the project is completed. The Town of Warren is confident that BTI can manage the project; will be successful in completing the project on time; has the funding to undertake the project; and will provide the quality of service that they need and expect.

In summary, BTI has been a key partner in many area communities for more than 100 years. We provide broadband service in the ILEC areas of Baldwin and Woodville and CLEC areas including the villages of Hammond, Knapp, and Roberts, Town of Hudson, Town of Troy, business parks in cities of River Falls, Hudson, and New Richmond. BTI is committed to strengthening the communities that it serves by contributing to the many academic and athletic organizations in each of the schools, belonging to the area chambers and supporting other civic organizations in the communities. BTI works with their business customers to meet their ever-changing broadband needs.

BTI's board of directors and management team live in the Baldwin-Woodville community. Many of the directors are or have been business owners. Managers of BTI are active members of the Wisconsin State Telecommunications Association (WSTA). BTI's staff belong to the St. Croix Economic Development (SCEDC), village board, local fire department, chamber, Lions Club and other community organizations. Due to the community engagement of the directors and staff, BTI has a history of successfully meeting the needs of its business and residential customers. Locally owned and managed, BTI's directors continually look for opportunities to expand broadband facilities to areas that are in need of broadband service.

- b. A description of how the proposed project will or will not duplicate existing broadband infrastructure.

This application does not duplicate existing broadband infrastructure based on the PSCW and FCC guidance defining broadband as landline 25/3 Mbps services. In addition, it does not at any point appear to duplicate another incumbent provider's known plans to deploy 25/3 Mbps broadband services by the time this application proposes to sign-up new broadband internet services.

- c. A description of an applicant's financial ability to undertake the proposed broadband construction project. This may include information such as the number of years the company has been in operation, documentation of successful completion of similar infrastructure projects, evidence that sufficient funds are available to cover project expenditure and match, customer turn-over rates, and credit rating.

Baldwin Telecom, Inc. has been providing telecommunication services since 1900.

In 2001 BTI began installing FTTH facilities in new developments. In 2002 the company was recognized by United States Department of Agriculture as the first independent telephone company in Wisconsin deploying FTTH in green field developments in the villages of Baldwin and Woodville.

In 2006 Baldwin Telecom, Inc. received the first broadband loan awarded in state of Wisconsin by RUS to build out new housing developments in Town of Hudson using fiber. From 2008 to 2017 Baldwin Telecom, Inc. upgraded all of its customers in the rural ILEC service area of Baldwin and Woodville to FTTH.

During 2020-2021 the ILEC Villages of Baldwin and Woodville were upgraded to fiber. BTI received an \$8 million loan from RUS to complete this project.

In 2010 Baldwin Telecom was awarded a \$9 million federal grant/loan to install fiber optic cable in Town of Troy under the American Recovery and Reinvestment Act of 2009. The project was completed in one year.

In 2014 BTI extended its fiber network to the City of New Richmond and provides service to the several key businesses. BTI continued the fiber network to the St. Croix Crossing, the bridge spanning the St. Croix River between Oak Park Heights, MN and Town of St. Joseph, Wisconsin. BTI has facilities in place to provide service when development starts in this area.

Recently BTI upgraded all coax facilities in the Town of Hudson to fiber. BTI obtained a loan from Bremer Banks to complete the upgrade and in 2021 paid off the loan.

As shown in section 3.2.5 a, in the last sixteen years BTI has invested nearly \$29 million in upgrading existing areas and building out new fiber areas.

The company has maintained its strong financial condition since inception in 1900.

Baldwin LightStream Board of Directors authorized internal funds necessary to complete both the initial last mile mainline fiber build, and for activation of new subscribers at their March 2022 board meeting.

Baldwin Telecom, Inc.'s PSC Annual Questionnaires outlining the company's financial condition are on file.

- For middle mile projects, state the terms under which the applicant will make its middle mile fiber resource available to last mile providers. Without disclosing project-specific or customer-specific negotiated rates for service or access, state whether access to the middle mile fiber resource will be offered to last mile providers at a rate that is reasonable and common to the industry. Describe any restrictions or limits that may limit the availability or interconnection with the middle mile route.

This is not a middle mile project.

- For middle mile routes, state the amount of fiber capacity, by number of fiber strands in a cable, that the applicant has been reserved for public use. Describe any commitment or tentative discussion indicating the local government or State agency that might use those fiber strands, and for what purpose. Describe any restrictions or limits that may limit the public use (e.g. a possible use conflicts with an existing program covering the same subject matter).

This is not a middle mile project.

- A description of how the proposed project will affect the ability of individuals to access health care service from home, including any impact upon the costs of those services.
 - Specific information from a hospital or clinic in the project area that currently uses or intends to use home-based

Residents of Town of Warren are very fortunate to have access to many medical care facilities in St. Croix County. Nearly all of the facilities offer telemedicine so that patients can connect with their doctor online. Hudson Hospital & Clinic and Westfields Hospital & Clinic belong to HealthPartners network of care providers. HealthPartners offers Virtuwel, their 24/7 online clinic, that provides treatment for over 60 conditions. River Falls Area Hospital is part of the AllinaHealth system and offers TeleHealth appointments.

Having a reliable high-speed broadband connection would allow more residents of Town of Warren to use this service.

- A description of how the proposed project will affect the ability of students to access educational opportunities from home.

Baldwin LightStream – FY2022 Town of Warren FTTH Broadband Expansion Grant Application

- Specific information on the likely number of students that will benefit from improved access to educational opportunities from home would be useful.

Many of the students living in Town of Warren attend St. Croix Central School District. Every St. Croix Central student in grades 3-12 are issued Chromebooks, which are used as learning tools in their education. According to letter from Superintendent Tim Widiker, there are approximately 200 households in Town of Warren that would benefit from a high-speed broadband connection.

Northwood Tech (formerly WITC) has a location in New Richmond, WI, a city located 10-15 miles from Town of Warren residents. Many classes are offered online and virtually.

- Specific information regarding educational programs that are currently available for students in the project area would be useful.

Students in the Town of Warren are able to enroll in virtual education programs offered by two districts in the proposed project area.

Saint Croix Academy of Virtual Education is part of the St. Croix Central School District. It serves 78 students in grades Prekindergarten through grade 12. The student population has grown by 150% over five school years.

The Hudson Virtual Academy is open to all Wisconsin students in grades 9 to 12 whether you are a resident or non-resident of the Hudson School District.

- A description of actions taken by a city, village, town, or county in support of the grant application that have not been discussed in the context of a public-private partnership above, including but not limited to:
 - The contribution of funds, easements or permissions to use publicly owned real estate, construction materials, or other items of value to the grant project.

The Town of Warren has pledged \$184,007.32 from their ARPA Local Fiscal Recovery Fund to the Broadband Expansion Grant Application.

- The contribution of other items of benefit to the grant project, such as public outreach and education, vehicles, water etc.

The Town of Warren will use their website, townofwarren.com, to communicate the status of the fiber project with the residents of the proposed project area.

- Certification as a Broadband Forward! Community or Telecommuter Forward! Community
The Town of Warren enacted a Broadband Forward! Network Project Ordinance, in Ordinance No. 2019-11-18 in anticipation of this project.

- Letters and messages in support of the application submitted by prospective customers, local government officials, and other interested persons.

A sampling of received Letters of Support is presented in Exhibit D of this application.

- Any other equitable factor that the applicant desires to discuss, including one or more of the factors in Wis. Stat. § 196.03(6) that the applicant believes its project would advance. In discussing this element, the following information may be useful:
 - Technical support and training materials that the applicant intends to provide.

BTI will add a section to the baldwinlightstream.com website that will provide important information for residents of the proposed project area. They will be able to attend the classes that BTI offers to anyone needing assistance accessing and using internet features. BTI's IT staff of highly trained workers are available during normal office hours. BTI's HELP DESK is available 24/7/365.

- Information that the applicant intends to use to promote better broadband adoption and use.

BTI staff are experienced at rolling out services in new areas. They will use this experience in the proposed project area. Staff will hold informational meetings at the Warren Town Hall for residents to learn about the construction project and service offerings. BTI will mail promotional materials to all the residents and add a section to the baldwinlightstream.com website for Town of Warren. BTI will use Facebook to announce availability, special offers and meeting dates.

- A description of a program or outreach to provide assistance to individuals of low income. Any other equitable factor that the applicant desires to include

BTI will include the Affordable Connectivity Program eligibility information in all materials that will be mailed or made available to Town of Warren residents.

Exhibits

Exhibit A – Public Private Partnership Ordinances

Exhibit B – Construction Costs

Supplemental Material to Application – Sent Separately

Exhibit C – History of Baldwin Telecom, Inc.

Exhibit D – Representative Letters in Support of this Application

Exhibit A – Town of Warren Broadband Forward! Ordinance – Page 1 of 2

**TOWN OF WARREN
St. Croix County, Wisconsin
Ordinance No. 2019-11-18**

**Enactment of the Town of Warren Broadband Network Project Ordinance
(Broadband Forward! Community Certification)**

Chapter 1. Broadband Network Project Application

SECTION 1. GENERAL PROVISIONS.

- 1.1 **Purpose and Policy.** The purpose of this chapter is to encourage the development of broadband access in the Town of Warren by reducing administrative obstacles to broadband service providers and coordinating the review of applications to ensure such applications are timely processed. This chapter shall at all times be construed consistent with the aforesated purpose.
- 1.2 **Definitions.** In this chapter:
- (1) “Applicant” means a person applying for a permit for a broadband network project.
 - (2) “Broadband Network Project” means the construction or deployment of wireline or wireless communications facilities to provide broadband communication services in the Town of Warren.
 - (3) “Permit” means any local permit, license, certificate, approval, registration or similar form of approval required by policy, administrative rule, regulation, ordinance, or resolution with respect to a broadband network project.
 - (4) “Written” or “In Writing” mean information that is inscribed on a tangible medium or that is stored in an electronic or other intangible medium and is retrievable in perceivable form.
- 1.3 **Point of contact.** The Town of Warren shall appoint a single point of contact for all matters related to a broadband network project. The Town of Warren shall provide on its public website the contact information, including the e-mail address, for the point of contact authorized to receive a broadband network project application.

SECTION 2. ELECTRONIC SUBMISSION OF APPLICATIONS. An applicant may sign and file all forms, applications and documentation related to a broadband network project electronically.

SECTION 3. REVIEW OF APPLICATIONS. Notwithstanding any other provision in the Town of Warren ordinances, resolutions, regulations, policies or practices to the contrary, the following process shall apply exclusively upon receiving a broadband network project application.

Exhibit A – Town of Warren Broadband Forward! Ordinance – Page 2 of 2

3.1 Completeness review. Upon receiving a broadband network project application the Town of Warren shall:

- (1) Determine whether an application is complete and notify the applicant of the determination by the Town of Warren in writing within 10 calendar days of receiving an application. If the Town of Warren does not notify the applicant in writing of its completeness determination within 10 calendar days of receiving the application, the application shall be considered complete.
- (2) If the Town of Warren determines that an application is not complete, the written notification of the applicant shall specify in detail the required information that is not complete. The applicant may resubmit an application as often as necessary until the application is complete.

3.2 Approval or denial of complete applications.

- (1) Within 60 calendar days of receiving an application that is complete, or considered complete under sub. (1), the Town of Warren shall approve or deny the application and provide the applicant written notification of the approval or denial. If the Town of Warren does not notify the applicant of its approval or denial within 60 calendar days of receiving a complete application, the application shall be considered approved and any required permit shall be considered issued.
- (2) If the Town of Warren denies an application, the written notification of the denial under sub. (1) shall include evidence that the denial is not arbitrary and capricious.

SECTION 4. FEES. Any fees imposed by the Town of Warren to review an application, issue a permit, or perform any other activity related to a broadband network project shall be reasonable. An application fee that exceeds \$100 is unreasonable.

SECTION 5. INITIAL APPLICABILITY. The treatment of this ordinance first applies to applications received by the Town of Warren on or after the effective date of this ordinance.

SECTION 6. EFFECTIVE DATE. This ordinance takes effect on the day of publication.

Adopted this 18th day of November 2019, by the Town Board of the Town of Warren.


Gene Hanson, Town Chairperson

Attested by:
 11/18/19
Deina Shirmer, Town Clerk/Treasurer

Exhibit B – Construction Costs**FY22 Broadband Expansion Grant Application**
Budget & Income Summary

Please complete this form using Microsoft Excel. A PDF copy must be attached to your application as page four. In addition, this form must also be uploaded to ERF in Excel format.

Grant Summary

Grant Applicant:	Project:
Baldwin Lightstream	Town of Warren

Budget

Line:	Description / Category:	Grant Funds:	Match:	Total:
1	Contractual, Consultant Fees	\$ 1,868,235.00	\$ 2,023,922.00	\$ 3,892,157.00
2	Equipment (Calix ONT's, Routers)	\$ 137,467.00	\$ 148,922.00	\$ 286,389.00
3	Supplies			\$ -
4	Labor (Salary, Fringe)			\$ -
5	Permitting, Licensing Fees			\$ -
6	Travel			\$ -
7	Other			\$ -
Total:		\$ 2,005,702.00	\$ 2,172,844.00	\$ 4,178,546.00
				52.0% match requested

Summary of Revenue Sources and Expenditures**PROJECT TOTALS - Town of Warren FTTH Broadband**

Total Plant Investment \$ 4,178,546.00

ONT's \$ 199,402.00
Routers \$ 86,987.00

Outside Plant Units

BDSIP	\$ 12,410.00	HBFO CO	\$ -
BFO-48i	\$ 214,935.00	HBFO-M	\$ 45,333.00
BFO-144i	\$ 96,512.40	HBFO-L	\$ 4,931.71
BFO-288i	\$ 141,162.84	HBFO-TRAY	\$ -
BFO-432i	\$ 70,431.64	HO1	\$ 73,500.00
BHF-M	\$ 78,840.00	HO1-P	\$ 26,000.00
BHF-L	\$ -	FNID	\$ 75,000.00
BM2(5/8x8)	\$ 4,380.00	FNID8	\$ 2,538.00
	\$ -	SEO4i	\$ 534,000.00
BFOV(7W)	\$ 782,669.18	SEO24i	\$ 10,400.00
BFOV(8W)	\$ 250,266.72	SEOV	\$ 657,549.30
	\$ -		\$ -
BM60(7W)	\$ 436,292.25		\$ -
BM60(8W)	\$ 187,759.16	Totals	\$ 3,718,461.20
BM70	\$ 1,250.00		
BM71	\$ 1,850.00		
BM72	\$ 750.00		
BM73	\$ 950.00		
BM83	\$ 8,750.00		

Contribution of Baldwin Lightstream \$ 1,988,837.00

Contribution of Town of Warren \$ 184,007.00

Request Award Amount \$ 2,005,702.00

Grant Funds Percentage of Total Construction Amount: 48%